

Prologue

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In a period of profound change in health care systems, those responsible for laboratory practice are challenged to understand the change and to seek opportunities to improve the quality of laboratory testing and service. Critical analysis of laboratory practices and carefully designed research studies will be essential in meeting this challenge. The **1995 Institute on Critical Issues in Health Laboratory Practice: Frontiers in Laboratory Practice Research** was organized to provide a forum for examining current laboratory practice research activities and for developing new research ideas and strategies.

Participants in the Institute represented a wide range of laboratory practice settings. In particular, the involvement of our clinical colleagues was valuable as we attempted to address and understand the future of laboratory practice. We began the proceedings with the recognition that we need to promote existing programs that support analytical excellence. We must, however, also consider new areas for investigation as well as new and innovative approaches to both answer questions and solve problems.

Participants in the Institute were asked to focus on selected topics and questions. The following four topics can be considered

traditional to laboratory research on quality of laboratory testing:

- **Proficiency testing**
Does proficiency testing provide a reliable measure of laboratory performance?
How can the validity and utility of proficiency testing be enhanced?
- **Personnel standards**
Are the current knowledge and skill requirements for personnel adequate?
How can knowledge and skills be better assessed?
- **Quality assurance**
Are current quality assurance practices sufficiently comprehensive and focused?
What are the methods/approaches for measuring quality assurance?
- **Establishing analytical performance goals**
How are analytical goals established and evaluated?
How should they be evaluated?

Four other areas for discussion look more to the future, and are concerned with new kinds of measurements, particularly ways to look at outcomes. These are:

- **Measuring the impact of change on laboratory testing**

What strategies can be used to assess the impact of change?

What methodologies can be applied?

- **Laboratory-focused health systems research**

What can be done within our present system to improve patient outcomes?

What can be done to design better systems for quality laboratory services?

- **Establishing medically relevant performance goals for the laboratory**

How are clinically related performance goals established and evaluated?

- **Detection of problems affecting patient outcome**

Are methods available to detect testing problems and measure their impact on patient care?

Are new approaches needed?

The challenge presented to the participants in this 1995 Institute was to thoughtfully consider these topics and questions, to raise other relevant questions, and to help provide direction and focus to all of those conducting research in laboratory practice.